## IN TAKE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ted Christopher

Examiner: F. Jaworski

Serial No.: 08/746,360

Art Unit: 3305

Filed: November 8, 1996

**Docket:** 9872

For: FINITE AMPLITUDE DISTORTION-

Dated: May 27, 2004

BASED INHOMOGENEOUS PULSE ECHO ULTRASONIC IMAGING

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## **INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §§1.97 and 1.98, it is requested that the following references, which are also listed on the attached Form PTO-1449, be made of record in the above-identified case.

- 1. U.S. Patent No. 6,206,833 B1, issued to Christopher, dated March 27, 2001;
- 2. M. A. Averkiou, et al., "A New Imaging Technique Based on the Nonlinear Properties of Tissues"; 1997 IEEE ULTRASONICS SYMPOSIUM, Pages 1561-1566;
- 3. Y. Kono, et al., "Gray-Scale Second Harmonic Imaging of the Liver with Galactose-Based Microbubbles", *Investagative Radiology*; Volume 32, Number 2, Pages 120-125; 1997;

## **CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, Alexandria, VA 22313-1450 on May 27, 2004.

Dated: May 27, 2004

John S. Sensny

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- 4. J. Ryu, et al., "Ultrasound Evaluation of Normal and Abnormal Fetuses: Comparison of Conventional, Tissue Harmonic, and Pulse-Inversion Harmonic Imaging Techniques", Korean Journal of Radiology, Pages 1-8; September 2003;
- 5. S. Zhou, et al., "Dynamic-Transmit Focusing Using Time-Dependent focal Zone and Center Frequency", 2003 IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, Volume 50, No. 2; Pages 142-152; February 2003;
- 6. F. Tranquart, et al., "Clinical Use of Ultrasound Tissue Harmonic Imaging", *Ultrasound in Med. & Biol.*, Volume 25, No. 6; Pages 889-894; 1999;
- 7. T. S. Desser, et al., "Tissue Harmonic Imaging Techniques: Physical Principles and Clinical Applications", *Seminars in Ultrasound, CT, and MRI*, Volume 22, No. 1; Pages 1-10; February 2001;
- 8. F. A. Duck, "Nonlinear Acoustics in Diagnostic Ultrasound", *Ultrasound in Med & Biol.*, Volume 28, No.1; Pages 1-18; 2002;
- 9. M. A. Averkiou, "Tissue Harmonic Ultrasonic Imaging", C. R. Acad. Sci. Paris, Pages 1139-1151; 2001;
- F. N. Demirbilek, et al., "Adaptive Spectral Sensitive Filter for Tissue Harmonic Imaging", Jpn. J. Appl. Phys., Volume 42, Part 1, No. 1; Pages 342-349; January 2003;
- 11. A. Bouakaz, et al., "Native Tissue Imaging at Superharmonic Frequencies", *IEEE Transactions on Ultrasounds, Ferroelectrics, and Frequency Control*, Volume 50, No. 5; Pages 496-506; May 2003;
- 12. R. Haerten, et al., "Ensemble<sup>TM</sup> Tissue Harmonic Imaging", *Electromedica*, No. 1; Pages 50-56; 1999;
- 13. M. C. van Wijk, et al., "Performance Testing of Medical Ultrasound Equipment Fundamental vs. Harmonic Mode", *Ultrasonics*, Pages 585-591; 2002;
- 14. A. Bouakaz, et al., "Super Harmonic Imaging: A New Imaging Technique For Improved Contrast Detection", *Ultrasound in Med. & Biol.*, Volume 28, No. 1, Pages 59-68; 2002;
- 15. P. N. Burns, et al., "Nonlinear Imaging", *Ultrasound in Med. & Biol.*, Volume 26, Supplement 1, Pages 519-522; 2000;

- 16. E. L. Rosen, et al., "Tissue Harmonic Imaging Sonography of Breast Lesions Improved Margin Analysis, Conspicuity, and Image Quality Compared to Conventional Ultrasound", *Journal of Clinical Imaging*, Pages 379-384; 2001;
- 17. M. Blaivas, et al., "Tissue Harmonic Imaging Improves Organ Visualization in Trauma Ultrasound When Compared with Standard Ultrasound Mode", *Academic Emergency Medicine*, Volume 9, Number 1, Pages 48-53; January 2002;
- 18. R. Lencioni, et al., "Tissue Harmonic and Contrast-Specific Imaging: Back to Gray Scale in Ultrasound", *Eur. Radiol.*, Pages 151-165; 2002;
- 19. U. Schiemann, et al., "Improved Ultrasound Examination of Pancreas Grafts in Type 1 (Insulin-Dependent) Diabetic Patients Using Tissue Harmonic Imaging", Transplantation Proceedings, Pages 3081-3084; 2003;
- 20. G. Schade, "Use of Ensemble<sup>TM</sup> Tissue Harmonic Imaging to Improve the Resolution in Ultrasound Investigation of the Head and Neck Area", *Laryingo-Rhino-Otol*, Pages 413-417; 2002;
- 21. P. Jiang, et al., "A New Tissue Harmonic Imaging Scheme with Better Fundamental Frequency Cancellation and Higher Signal-To-Noise Ratio", *IEEE Ultrasonics Symposium*, Pages 1589-1594; 1998; and
- 22. "Recent Innovations in B-mode US", RG, Volume 23, No. 4; Page 1028; July-August 2003.

Applicant is submitting copies of the above-cited references.

Applicant notes that a Final Action was issued in this case on March 19, 1998; however in a Communication dated August 31, 1998, that Office Action final rejection was withdrawn. Accordingly, it is believed that 37 C.F.R. §1.97(c) sets forth the requirements needed to have this Disclosure Statement considered. A fee, in accordance with 37 C.F.R. §1.97(c)(2) and 37 C.F.R. §1.17(p), in the amount of \$180.00 is hereby authorized to be charged to Deposit Account Number 19-3886. A duplicate copy of this statement is enclosed.

Accordingly, it is hereby requested that this Information Disclosure Statement be considered and made of record in the above-identified patent application.

Respectfully submitted,

John & Benony John S. Sensny Registration No. 28,757 Attorney for Applicant

SCULLY, SCOTT, MURPHY & PRESSER 400 Garden City Plaza Garden City, New York 11530 (516) 742-4343

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TRA	TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT  Docket No. 9872										
In Re A	Re Application Of: Ted Christopher										
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Title:	Title: FINITE AMPLITUDE DISTORTION-BASED INHOMOGENEOUS PULSE ECHO ULTRASONIC IMAGING										
		Commissi P.O Alexandria	dress to: ioner for Patents . Box 1450 n, VA 22313-1450	-							
1.	37 CFR 1.97(b) The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.										
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## TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT Docket No. (Under 37 CFR 1.97(b) or 1.97(c)) 9872 In Re Application: **Ted Christopher** JUN 0 1 2004 Serial No. Filing Date Examiner Group Art Unit 08/746,360 **November 8, 1996** F. Jaworski 3305 FINITE AMPLITUDE DISTORTION-BASED INHOMOGENEOUS PULSE ECHO ULTRASONIC Payment of Fee (Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p)) □ A check in the amount of is attached. The Director is hereby authorized to charge and credit Deposit Account No. 19-3886/RCT as described below. Charge the amount of \$180.00 Credit any overpayment. X Charge any additional fee required. Certificate of Transmission by Facsimile\* Certificate of Mailing by First Class Mail I certify that this document and authorization to charge I certify that this document and fee is being deposited account is being facsimile transmitted to the Unit on May 27, 2004 with the U.S. Postal Service Patent and Trademark Office (F: as first class mail under 37 C.F.R. 1.8 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. (Date) Signature Signature of Person Mailing Correspondence John S. Sensny ped or Printed Name of Person Signing Certificate Typed or Printed Name of Person Mailing Certificate \*This certificate may only be used if paying by deposit account. ofm & bons my Signature Dated: May 27, 2004 John S. Sensny Registration No. 28,757 Scully, Scott, Murphy & Presser 400 Garden City Plaza Garden City, New York 11530 (516) 742-4343

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